

OCCURRENCE OF ACARI OF THE FAMILY CAECULIDAE IN JAPAN

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TWO FIGURES

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The family Caeculidae had not been accounted into the Acari but was placed in the Opiliones as a near relative of *Trogulus* (L. Dufour 1832). Thanks to the researches of more recent authors, however, it has been referred to the Eleuthelegona of the Acarid group.* In 1938, while staying at the Akkeshi Marine Biological Station in Hokkaido, the writer had a good opportunity to obtain a single specimen belonging to this interesting family of which no representative has hitherto been reported from Japan, although two species and one subspecies were described by A. P. Jacot from China. The Japanese specimen therefore seems to be the fourth form recorded from Asia. Before proceeding further, the writer wishes to express his hearty thanks to Prof. Tohru Uchida for his kind guidance.

Caeculus uchidai n. sp.

Body attaining a length of 1.7 mm and a breadth of 1.2 mm. Outline roughly elliptical, emerginated posteriorly and thicker near the posterior portion. Scutes crumpled and skin marked by many undulating striations mostly disposed in parallels. Color light brown with brown undulating striations; legs brownish black, scutes and mouth parts dark brown and hairs glistening silver-white. Cephalic scute large, mushroom-shaped, extending posteriad to transverse plane passing leg III. It is anteriorly projected at the middle, bearing a large claviform hair on each side of this projection, and a group of three hairs on each of latero-caudal corners. Pseudostigmatic organs short, seti-

* Concerning the systematic position of the present group in the Acari, there are some controversies among the views of former investigators: for instance, A. P. Jacot (1936) enumerated this group in the subfamily Caeculinae of the Cheyletidae, while H. E. Ewing (1934) considered this group to constitute the superfamily Caeculoidea.

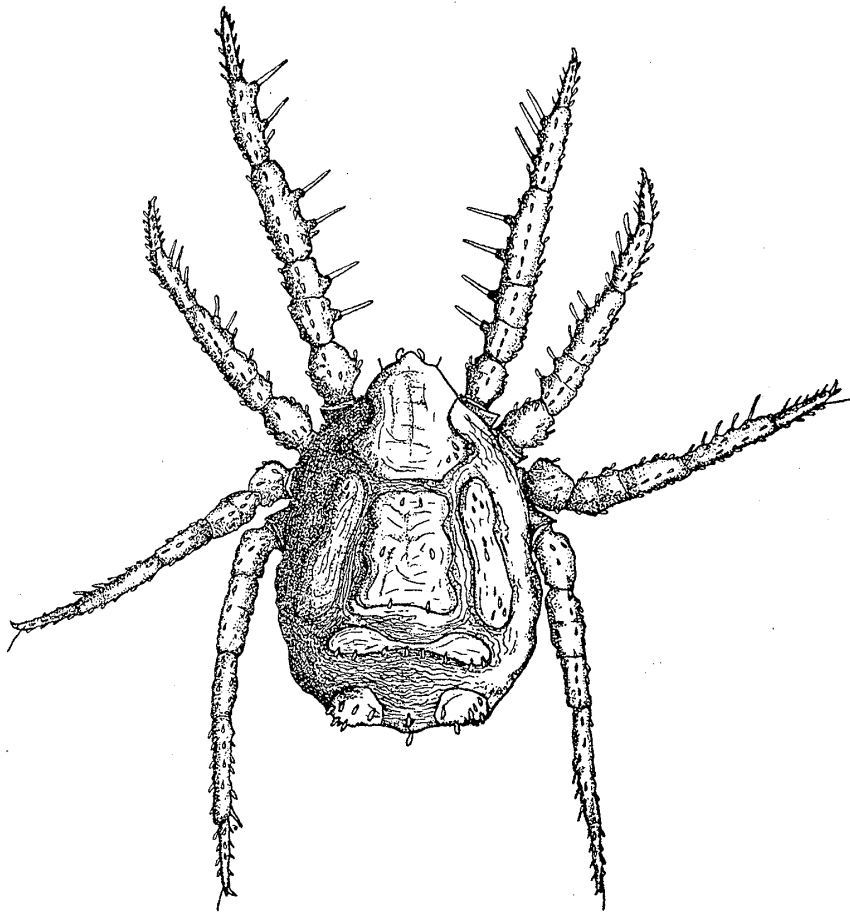


Fig. 1. Dorsal aspect of *Caeculus uchidai* n. sp. (Mouth parts removed)

form and not clavated anteriorly. Abdominal scutes consist of six independent ones. Anterior three scutes arranged in a transverse row, the middle one the largest of all, longer than wide, trilobed laterally and bearing three transverse rows of claviform hairs, two in each. Lateral two scutes symmetrical with each other, elongated, and each furnished with several hairs, three on two extremities and two on the middle portion. A wide dumbbell-shaped scute situated posterior to these three, is provided with eight claviform hairs along the caudal margin. Terminal part of the dorsal body bears a pair of round scutes which are furnished with six hairs. Posterior terminal end of the body bears three hairs in a transverse row.

On ventral surface, epimera arranged close together in a radiate fashion as in other species. First and second pairs fused with each other, narrowed axially, having four hairs along the anterior margin of the former, and one hair on the latter. Third and fourth

pairs in contact with each other, shorter than the anterior two pairs, narrowing axially and bearing two hairs on the former. These hairs of epimera and dorsal scutes are ragged at their surfaces and swollen apically but narrowed at their bases. The genital and anal regions are both much longer than wide, and each is bordered by a pair of spindle-shaped scutes which are dark brown and strongly chitinized. Former shorter than latter, surrounded by a pair of crescent-shaped scutes, anterior one-third dark brown and clearly defined from the remaining indistinct part. Latter bearing two small hairs on each and provided at the latero-posterior portion with a pair of distinct, dark-colored scutes which are tapered posteriorly and provided with three inconspicuous hairs. Maxillary palpus thick in form, composed of five segments. First segment short, small and annuliform. Second widest and longest of all, bearing two claviform hairs on the convex dorsal edge. Third segment narrower at the ventral portion and provided

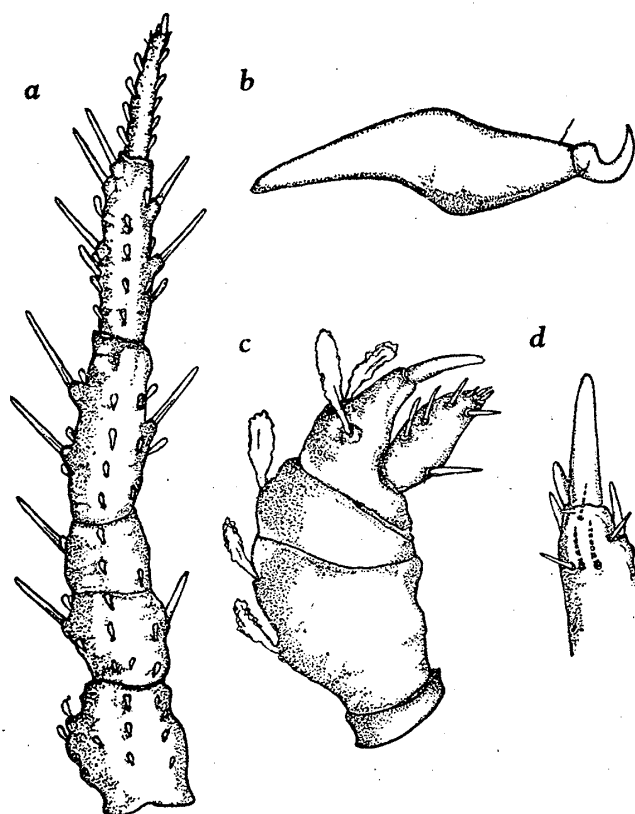


Fig. 2. *Caeculus uchidai* n. sp.

- a. Dorso-exterior aspect of right leg I.
- b. Lateral aspect of chelicera.
- c. Lateral aspect of maxillary palpus.
- d. Distal part of tarsus of right leg I.

with a claviform hair on the dorsal surface. Fourth segment narrowing to the distal end, having a distinct terminal claw and two dorsal hairs on the lateral sides. Hairs of the palpus mentioned above are all large, ragged and narrowed at their bases. Fifth segment inserted on fourth ventroproximally, suboval, narrowest of all, about twice as long as wide, bearing four spine-like hairs in a longitudinal row on the dorsal, anterior one being the smallest of all, two robust hairs on the ventral and a pair of pointed, small hairs at the distal end. Hypostoma swelled at the ventral portion, divided distally into a pair of maxillary lobes, and bearing four slender hairs in a transverse row at the ventro-distal portion. Maxillary lobes conical in shape, each furnished on the ventro-distal aspect with two hairs, mesial one longer than the other. Chelicera narrowing toward both ends and furnished with a strong, curved terminal claw and a setiform hair on the dorso-distal portion. Legs stout, composed of six segments: trochanter, basi-, telofemur, genual, tibia and tarsus with two terminal claws. Legs I and II bear prominent spines and terminal claws of quite unequal size, while III and IV are nearly deficient in these spines, but bear a long slender hair on each tarsus and claws of subequal size. Legs I with the dorsal surface covered with finely spiculated hairs, arranged in two, more or less regular rows. Junction between basi- and telofemur unusually well defined. Tarsus slender, about fifth times as long as wide, bearing in the distal portion three setiform hairs on the ventral, two spines on the dorsal, and a thick spine on each lateral side, besides terminal two claws. The spines of leg I except those of tarsus, are powerful and mounted on distinct, conical tubercles. Large spines of the inner side of posterior five segments are arranged as follows: in trochanter 0, in basifemur 1, in telofemur 1, in genual 2, and in tibia 3 (in left tibia 2), and those on the infero-exterior side: in trochanter 0, in basifemur 1, in telofemur 1, in genual 1, and in tibia 2.

Locality: A single specimen was collected by the writer from a rocky slope of Cape Aikkappu, Akkeshi, Hokkaido on July 13th, 1938.

Remarks: This species is closely allied to *Caeculus laoshanensis* Jacot 1936 in its general appearance, but may be distinguished from the latter by the arrangement of hairs, the shape of dorsal scutes, genital and anal regions, the number of hairs of epimera, and especially by the thick maxillary palpus. From other species of the genus, this form is easily distinguishable by the distinct, independent dorsal scutes, and also by the arrangement of hairs or spines on leg I.

LITERATURE

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